

Reviewer: McMaster Nuclear Reactor – Operations/Nuclear Criticality Safety Country/Organization: Canada, McMaster University			
Comment No.	Page/Para/Line No.	Proposed new text (if applicable)	Reason/Comment
General	GD-327		<p>The regulations given in the companion RD-327 Draft Regulatory Document do not need to be reprinted in this guidance document. Most of the copied text from RD-327 should be removed from GD-327 and instead GD-327 should provide guidance/guidelines on how to meet the requirements of RD-327. For example, the Appendices provided in GD-327 are what are relevant to this guidance document, such as App. D relating to Criticality Alarm Detector Placement. Suggest moving this to the main body of the document and cutting the RD-327 text.</p> <p>As a general approach all of the requirements, presented via statements with “shall” can be removed from GD-327. Similarly recommendations and options represented by statements with “should” and “may” which are contained in RD-327 could be retained in GD-327 but cut in RD-327.</p>
General	RD-327, GD-327		<p>For better referencing and cross checking between the regulatory document RD-327 and the guidance document GD-327 a suggestion is to use the same Section numbering for the two documents. An example of where this would certainly help is in Section 2 of GD-327 where things are out of step with RD-327.</p>
General	GD-327		<p>In many sections the opening paragraph states that:</p> <p><i>Some parts of this section are extracted from ANSI/ANS... with permission of the publisher, the American Nuclear Society. The text may have been adapted to make it applicable to Canada’s international obligations to IAEA and consistent with CNCS’s</i></p>

			<p><i>regulatory requirements.</i></p> <p>Adaptations/modifications should be explicitly noted, with justification provided for this changes.</p>
1	App. B, Sec. B.2		<p>Verification should not be limited to computer codes. This suggests that computer simulation is the only acceptable analysis method – which should not be the case.</p>
2	App. B, Sec. B.3 and B.4		<p>Notation should be consistent. Confusing as is.</p>
3	App. C		<p>Opening paragraph should reference RD-327 explicitly. As is this appears to reference requirements presented in the guidance document.</p>
4	App. D, Sec. D.2.1		<p>This appears to reference Section 3 of GD-327. In general, the material in the Appendices appears to be the most relevant to guidance on various aspects. Suggest making these appendices actual sections in the body of the document, rather than referencing sections which appear to be restating material in the associated RD-327 document.</p>
5	App. G, Table G-3: Failure Probability Index Numbers		<p>Given that the CNSC requirements have extended the frequency range to 1E-7/yr and less frequent, the guidance information in Table G-3 should similarly be extended to cover this frequency range. As is the CASA methodology presented implies that a probability index number of -7 is associated with a probability/frequency of 1E-7/yr but this is not explicitly stated.</p>